



The Young Child's Sense of Time and the Clock

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A central preoccupation of people living in modern societies concerns the special effort devoted to domesticating time. Clocks and calendars have become instruments of power and control, so that we hold one another accountable under a publicly evolved system of time-reckoning. Everyone and every institution is included in an intricate, invisible webbing of clockwork relations that employ universal and homogeneous units of time.

Life under the watchful eye of the clock begins in early childhood. Its presence insinuates itself into children's lives through every facet of their social surroundings, but primarily by way of the working and household schedules of parents, the routines of school life, and the press of media events. In school, youngsters observe clocktime rituals throughout their daily and weekly schedules. The face of the big dial clock hovers above the chalkboard as if watching over the proceedings, representing the continuing pressure of public time in the classroom. It keeps the time of efficient productivity, which is also the contractual time of classroom instruction and compulsory schooling. At home, young children are often given wristwatches which they wear proudly to school, indicating their unwitting marriage to a synchronous public life. They are already preparing for an adulthood of quantified modular time, a time that is precise and continuous, replete with deadlines, appointments, punctual behavior, carefully timed routines, and calendar arrangements for the future. This kind of lifestyle is the price they will pay for the security of their middle class bondage to the clockwork social order (Briod, 1978).

But how do very young children experience and understand clocktime? How does their understanding of past, present, and future become the temporal context for their awareness of clocktime and its attendant social pressures? And how does clocktime first manifest itself in the child's lived world? By investigating the appearance of clocktime in the early lives of children, I seek to understand something about "the ingression of the historical tradition into the on-going process of everyday life" (Schrag, 1980). I want to learn how clocktime finds its way into children's everydayness and how they come to understand and appropriate the public time system. To that end, I have selected a variety of children's stories that make use of clocktime and other temporal themes such as aging, routines, and seasonal changes. I've been reading and discussing

these stories with groups of four, five, and six year olds at several sites in suburban Detroit. In addition, I have had countless incidental conversations about time with young children and most frequently with my five year old daughter, Nina. Most of my examples are in fact from Nina, whose observations about time have understandably received my close and careful attention. But they are here blended together with comments from other children to produce a more general portrait of the young child's emerging sense of time and the clock.

Thinking In and With Time

Children think in and with time long before they think about it (Lippitz, 1983, p. 175). By age three they use verbs that place their actions in the past or future, not just in the present. Merleau-Ponty (1964) observes that a 35 month old girl began using the future and past imperfect tenses just before the expected birth of her baby brother. She had been the recipient of her parents' exclusive affections, but began assuming a more autonomous and active posture in the light of her parents' newly divided interests. The shift in her attitude turned up in the sudden emergence of verbs in the future tense. "The future is a time of aggressiveness, a time when projects are envisioned, when one takes a stand in the face of what is to come" (p. 112). The girl also began using the past imperfect tense, such as "I was going" rather than the past definite "I went." This suggests that "the child was becoming capable of understanding that the present changes into the past," an awareness that she "was just in the process of achieving in her relations with her family" (p. 112). The baby became what the girl used to be in the family's world.

Time Present

With the rapid expansion of language in the child's experience, a more deliberative attitude toward time begins to emerge. And even though "time cannot be found anywhere in the watch that indicates time" (Heidegger, 1972, p. 11), timepieces very soon begin to remind the child of his or her presence in time. At first the present is experienced independently of clocktime, but soon it becomes expressed as a "now" that is fixed by the clock.

I asked Nina, "Where are the napkins?" since they were not in their usual place in the cupboard. Ryan, our four year old luncheon guest, watched me with growing curiosity while I searched here and there. In a tone of disgust he said, "You mean you *live* here and you don't know where the napkins are? That's funny!" Frequently used objects are normally present at hand; yet, at that moment they were not in their expected place. If the present is one's "presence to" things in the world, not merely an abstracted series ofnows suspended between the past and the future, then Ryan must have

shared in my experience of the present, otherwise he could not have found anything funny in my Chaplinesque search for the napkins.

Nina was watching a space shuttle landing on television, and I was holding forth on the skill and risk involved in gliding the shuttle to a soft landing. At first she stared blankly at the screen, but then in an excited tone she asked, "Is that really happening now? Right now?" Like the rest of us, she is used to canned commercials and taped programs, and only rarely does she sense that television is conveying a live event. The shuttle landing momentarily gave her that sense. Yet immediately after the touchdown, she walked away and gave it no further attention, presumably because it was not an ongoing part of her life.

The notion that television is an entirely present-centered medium has been proposed by Neil Postman (1981). He claims:

Everything we see on television is experienced as happening now, which is why we must be told, in language, that a videotape we are seeing was made months before. The grammar of television has no analogue to the past and future tenses in languages. Thus it amplifies the present all out of proportion and transforms the childish need for immediate gratification into a way of life. (p. 386)

But if Postman is correct, how does one account for Nina's question about the shuttle landing? Apparently the "presentness" of television is not often a vivid presence, at least not for a five year old. Perhaps children experience television as a kind of altered or doctored present, one that is spatially circumscribed and remote, in spite of the tube's prominent placement in the room. It is as if one were peering through the wrong end of binoculars, rather than feeling oneself face-to-face with the world in which one actually lives and has one's being.

Recently Nina has taken to fixing the present as a moment defined by the clock. One day she read off the numbers on a digital and announced: "11:27. Sarah's in school. Right now she's probably getting ready for lunch." Last year Nina attended an all-day preschool, but as a half-day kindergartner her immediate social world has become narrower. Thus she seeks any means by which to broaden it again. Television has lost some of its lustre, and the clock, of all things, has become a tool for making imagined connection with the wider world. It helps her achieve an enlarged sense of the present, an imagined "presence to" certain friends who are doing other things in other places, right now. Reading the time on the clock has given wings to her imagination in much the same way that reading words in a book can do. Her early engagement with the clock has extended her world, rather than pressuring or diminishing it, as often happens a few years later.

Layers of the Past

The child's sense of the past, like the present, is reflected in several different kinds of experience. At the immediate level is a gradual transition of events from the present into the immediate past. In order to retain this past, says Merleau-Ponty (1962), one must "reach through a thin layer of time" (p. 416). The realization that an occasion had slipped into the immediate past occurred to Nina after she attended a Teddybear Tumble on Saturday afternoon. She wore her Teddybear pin to the Tumble and kept it on for the entire weekend as if to celebrate the continuing glow of the event in her heart. However, on Monday morning she threw the pin away and declared that the Tumble was over. But after thinking about it, she retrieved the pin from the wastebasket because, after all, it was still a pretty pin.

The past may be experienced in a more remote and irretrievable sense. As Merleau-Ponty (1962) puts it, "When I call up a remote past, I reopen time and carry myself back to a moment in which it still had before it a future horizon now closed" (p. 416). Nina's sense of the remote past emerged in relation to a tragic event that left an indelible mark on our community. Our next door neighbor, John, committed suicide. He had been a semirecluse who seemed more comfortable with young children than with adults. So he had occasionally paused on the curb to engage in animated chatter with Nina. She had always enjoyed his banter even though the older children and their parents warned about his "craziness." One day, seven months after the suicide, Nina was thinking about John and the conversations they used to have. An expression of astonishment slowly crossed her face, and she asked "Why did John kill himself?" Then, in a sad tone she added, "I almost can't remember what he looked like anymore." Three days later John's suicide was still on her mind because I overheard her talking to her friend, Scott, with desperation in her voice: "Scott, why weren't you John's friend?" "John who?" asked Scott. "You know, John, the man you called 'crazy John' and I told you not to call him that!" "Oh, that John." The facticity of the suicide obviously weighed heavily upon her as she struggled to share her frustration. The event had become too remote to have any lingering feeling of presentness about it, and perhaps that was why she finally felt secure enough to call it up for reflection seven months later.

Young children seem to have only the vaguest awareness of history. The historical past is unlike the remote past because it was never a present event for any living person. It lies beyond the reach of everyone's personal memory and must be reconstructed some other way. One day I was telling Nina about the American Indians' attempt to drive out white settlers during the 19th Century, and she asked, "How do they remember when things happened?" I said

"they" write down their memories in books, and that seemed to satisfy her. I didn't mention chronological time or calendar years; nor did she. How could she? Any meaningful reference to calendar years depends upon an experienced appreciation for the length of a lived year, and a resulting appreciation for multiple year sequences of 10 or 50 or even 100 years. And that appreciation depends, in turn, upon a memory that carries one behind last year to a time before that, and so on. But to a five year old, last year and the year before last exhaust any sense of history. Claims about earlier times are consigned to an age of mythic proportions, rather than to a lived-time that was once flowing and open to its own future. Pictures and other artifacts seem only to reinforce this mythic awareness in children, rather than to reveal a living past.

In addition to their sense of an immediate, remote, and historical past, children may also have glimmerings of the deep past. This is the long chain of evolutionary time that is evidenced by geological strata, species variation, and so forth. One day Nina asked, "How was the first person born?" I explained that there was no first person. "Each person had parents, and those parents had parents, and so on." She was not satisfied. "But, Dad, how was the very, very first person born?" My explanation about the links between people, monkeys, and reptiles was terribly abstruse, and we were both relieved to go on to something a bit less recondite. But perhaps we both caught a glimpse of what Eliot (1943) once called "the backward look behind the assurance of recorded history, the backward half-look over the shoulder, towards the primitive terror" (p. 39).

About Age

Closely related to the child's awareness of the past is his awareness of age and aging. Young children frequently want to know how old things are. But Piaget (1969) argued that the concept of age as a formal idea takes many years to emerge in children. To distinguish the concept of age from height or other extraneous factors is said to be beyond their mental reach. "Who is older," I asked, "Josh or Natalie?" Natalie said, "I am, because I'm six and he's only five." "Stand up," I said, "and let's see who is taller." Both of them agreed that Josh was taller. Then I asked, "But if Josh is taller, how come Natalie is older?" Natalie immediately seized the thought. "Hey, that's right! If I'm older, I should be taller than he is. But I'm not. That's strange!" I do not conclude from this conversation that Natalie was unable to sort out her age from her height. Perhaps she merely found it odd that a generally reliable rule was not upheld in this instance.

Piaget was also interested in the children's ability to link people's relative ages with their birth orders. He argued that this sort of for-

mal reasoning is beyond the intellectual capability of young children, who must first go through an incubation period of preoperational and concrete operational thinking before they can grasp the formal idea of age interval consistency. But it seems to me that his timetable was amiss. Nina was listening to a story about my sister that took place when I was nine years old. She said, "Your sister must have been eleven." Surprised, I asked her how she knew. "Well, you are 45, and aunt Celia must be 47 because I remember you said she is two years older than you. That means she must have been eleven when you were nine."

But when the question of age interval constancy was linked to a different premise a few weeks earlier, she had become confused. Nina and Sarah were anticipating their birthdays, which are only three days apart. Nina asked, "If Sarah's birthday comes after mine, then how come she's older than I am? If my birthday is on July 22 and hers is on July 25, I must be older than she is." Sarah echoed this question. "Yeah. How come I'm older?" I said something like, "You're older because age is mostly determined by the year of birth, not the month or day of birth, and you were born four years before Nina, even though your birthday comes three days after Nina's." I elaborated this tortuous explanation several times, but to no avail. The distinction between cycles of calendar time and linear age eluded both of them. So, when Nina had considered age in terms of years, she was able to maintain an age interval constancy, but when she tried to compare birthdays rather than birth years, she was confronted with two simultaneous temporal schemas, one cyclical and one linear, which she apparently could not interrelate.

This notion of age interval constancy came up earlier, though in a different way, when Nina spotted a mother pushing her baby carriage. "I wish I could be that baby all bundled up inside there," Nina mused. "She does look cozy," I said. "Maybe you could become a baby again. Do you know anyone who has been a baby twice?" She threw the question back at me. "Is there anyone, Daddy?" "No," I said. "We really have only one chance to be a baby, then we grow up and are never babies again." Suddenly she fairly exploded with an objection: "But that's not true! I'll always be mommy's baby, and when I have babies, they'll always be babies to me. Mommy is still a baby to Oma, and she always will be. So everyone stays a baby to someone else." Here Nina's sense of age interval constancy was evident in her awareness of generational intervals. She understood very well the fixed relationship between generations within her family.

Learning the Public Time System

Nina's description of the generations implied awareness of a unitary time field, so that any moment within it is past from one point of

view and still to come from another. She seemed aware of time as an open network of experiences. As Merleau-Ponty (1962) put it, "time is one single movement appropriate to itself in all its parts" (p. 419).

But this open field of time is not experienced by children in any quantified way until they begin to reckon precise units of clock and calendar time. Clocktime can be thought of as a cultural system that is accommodated to the child's primordial awareness of lived time. Like the metric system, its units are convertible into one another. But clocktime has never been included in the metric system of measurements, except briefly under the revolutionary French Republican Calendar (Zerubavel, 1981, p. 82ff.). So the clocktime system is not as rational, hence not as easily accommodated by children, as educators would like it to be.

How, then, do children begin to crack the code of this system? First of all, there are difficulties inherent in identifying the units, such as the days of the week or the months of the year. I asked four year old Audra when her birthday came, and she replied, "Octsummer." For Audra, the seasons were still blended together with the less familiar sounds of the months. But Jayna, her twin sister, had already begun to separate the days of the week from the environmental context in which they happened to occur. We were reading a story in which it always rained on Thursdays. I peered out the window and said, "It's raining today, so it must be Thursday. Right?" "Right," said Audra. But Jayna said, "No, it's really Monday today. Just because it's raining doesn't mean it's Thursday."

The system of clocktime is only gradually fleshed out. Sarah called Nina on the phone and asked when she was planning to go to Ryan's birthday party. Nina put the phone down and asked, "What time are we going to Ryan's?" "In about 15 minutes." "No, mom," she countered, "I said what *time* are we going?" "Oh. At quarter to three." Satisfied, Nina got back on the phone and said, "Sarah, we're leaving at quarter to three." Nina was becoming aware of the distinction between mere intervals of time, on one hand, and intervals that are part of a system of minutes and hours, on the other. Even though she could not "tell time" by the clock, she could nevertheless distinguish between the passage of random minutes and their placement into a schema of clock hours.

Whose Future?

It is through this system of clocktime that children become increasingly interested in anticipating the future. In fact, children first decipher the clock just so they can look forward to the next activity. Last summer Nina would ask questions like "How long before the parade begins?" An hour meant little to her, so she would say, "it starts in two Black Beauties," which meant, "in the length of time it

takes to watch two of your favorite television shows." That method seemed to make sense to her, so it became the routine way that she estimated when future events would occur. But a few months later she began referring to hours and half-hours instead of Black Beauties and Dangermouses. She was already beginning to use the clock as an instrument for reckoning her own future.

Children also acquire early habits of using clocks or calendars in order to track events from the future into the past. They pick up these mysterious ritual procedures long before they fully understand their social meaning. I was reading a Frog and Toad story to a group of four year olds. Frog fooled Toad into thinking it was spring by tearing several months off his calendar until he came to "half-past May." No one laughed. But when I asked if anyone had a calendar at home, Josh said, "Yes, and I sometimes forget to do it." "Do what?" I asked. "Do my calendar." "What do you do with your calendar?" "I X-off the numbers," he announced with managerial gusto.

The downside of the clocktime system, at least from the children's viewpoint, is that adults can use it to pressure them. One day I was reading to a group of children when the teacher announced, "It's time." Not knowing the routine, I asked, "Time for what?" The teacher turned to the kids and asked, "What is it time for, children?" They responded with stony silence. "Nap time," she declared, "two o'clock is always nap time." Billy countered with his own announcement: "I don't take naps!" Ryka squirmed. "I don't take naps anymore. I hate them." This standoff is part of the perpetual clash between kids and adult schedules. Parents and teachers try to hustle kids along, but children are not always conditioned to follow.

Sooner or later, though, children become infected with adult anxieties about being "on time." Driving Nina to kindergarten, I found myself stepping on it to arrive on time. Nina asked, "Are we late?" "Only a few minutes," I said, feigning perfect control. I stopped quickly in front of the school, but before she left, Nina took the time to hug me and the dog and to tell a funny incident that she had just remembered. She was not avoiding school, because the next moment she ran with abandon to join her classmates; and she told her anecdote in rapid, staccato phrases, so my time anxiety was, unfortunately, getting to her. Clearly Nina does feel the pressure of time. She experiences it through my rushing as well as through the agendas of her teacher and other adults. But she doesn't buckle under to this pressure. Even though she sees me furtively glancing at my watch, she gracefully declines to play the pure punctuality game or to bow to the sense of urgency I so subtly communicate to her.

On Managing One's Own Time

Children are painstaking observers of adults. And like adults they sometimes develop an anthropological eye for certain strange and questionable adult behaviors. But they also know that they must some day join the ranks of us big people and that their metamorphosis into adulthood won't occur overnight. So they work at the paradoxical task of remaining children while becoming more like adults. With respect to clocktime, this means that they are continually working out compromises with adults by adjusting to adult time demands while retaining an unhurried pace in their own lives. As they grow older, the tension seems to increase between their rhythmical lifeworlds and the rigid imposition of adult schedules. But this tension will slacken only if they capitulate to adults or else learn to manage their own time and thus discover the social utility of living by clocks and calendars.

There is a difference between merely reading clocktime and actually using it to cope with the demands and wishes of other people. Schools that teach time-reading skills often prevent students from using those same skills to plan their own arrangements. But clocktime can and should become a means of social empowerment for children. It need not imply the sacrifice or covering over of lived time. To paraphrase Eliot (1943), time and the bell need not bury the day, and the black cloud need not carry the sun away. And the question is not whether young children will "internalize" the clocktime system, because they will. Rather, the question is whether they will learn it in a manner that leads to social autonomy and self-directed scheduling, or to loss of control under agendas that serve the exclusive purposes of other people's plans, appointments, and deadlines.

For what is time-management? It has little to do with wasting time or efficiently filling the hours. As an ideal, time-management is too important to be reserved only for fast-moving career men and women. At bottom, it is the art of living one's life with grace and substance in a hectic and driven clockwork social order. It is a way of giving form to one's future rather than surrendering it to the plans of others. Without the means to manage it, the child's future becomes defined by everyone else or it remains an empty future.

An essential condition for living in an authentic community of persons is that all participants become temporally autonomous: that is, they adjust to the plans of others without losing control over their own arrangements. This sort of autonomy can be thwarted or nurtured. We nurture youngsters' autonomy whenever we invite them to bargain with us about their plans and activities, rather than deciding for them when and how they should be with us. This auton-

omy is not a matter of doing whatever they want whenever they want to do it. Rather, it involves planning and doing whatever is feasible under conditions of ongoing negotiation and compromise with other busy people.

Most adults try to instill in children early habits of promptness. They expect them not to dawdle, and they push them along to daycare, to school, to bed, and so forth. But children will push back, probing for ways to use the time system for their own purposes. Nina had occasion to use her newly acquired time-reckoning skills after agreeing to try a nine o'clock bedtime. "Time for bed," I said glancing at the darkness outside. "But, Dad," she objected, checking her pop-up watch, "it's only 8:50." And she pointed triumphantly to the numbers on the digital clockface. In a small way, she was already fending off an unfair attempt at manipulating her time, not by escaping from the system, but by using it to maintain and extend her autonomy. These sorts of situations will multiply as she builds a sense of her own projected future with a sense of possibility that is unique to her own world. But it will not come easily. Children do not readily achieve the sense of a living future, a created future, with a projected shape and substance all its own.

Nina and I were reading a book about a young man who catches whiffs of the future through his extraordinary olfactory powers. "What is the future?" I asked. "It's what happens to us after we die." "Is next year part of the future?" "No." "Is tomorrow part of the future?" "No," she replied, "because we won't die tomorrow." Like many young children, Nina has little need yet for a planned future, presumably because her present has an ambience that encompasses nearly the whole of her life. But as the tension mounts between remaining an eternal child and becoming a mortal adult, an extended future of living possibilities will swing into view, and with it will come a desire to make that future her very own.

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